

## Abstract

Since the air pollution can cause serious health problem, the concerns about forecasting air pollution timely and accurately arise by researchers in order to alert the public avoiding high level pollution and help the government make decisions. In our research, we take Hong Kong (finished research) and the cities in Mexico (finishing) and Mainland China (starting), especially the high pollutant areas such as Mexico City and Beijing, as study cases. Meanwhile, various types of artificial intelligence techniques are employed to achieve the goals. Furthermore, we also extent our research from forecast pollution to assess the air pollution – related social effects, for example health impact and its economic loss, which are also the concerned by public and the governments.

